

**EU-ANSA agencies'
engagement in
the European
Union research
knowledge cycle:
an overview**



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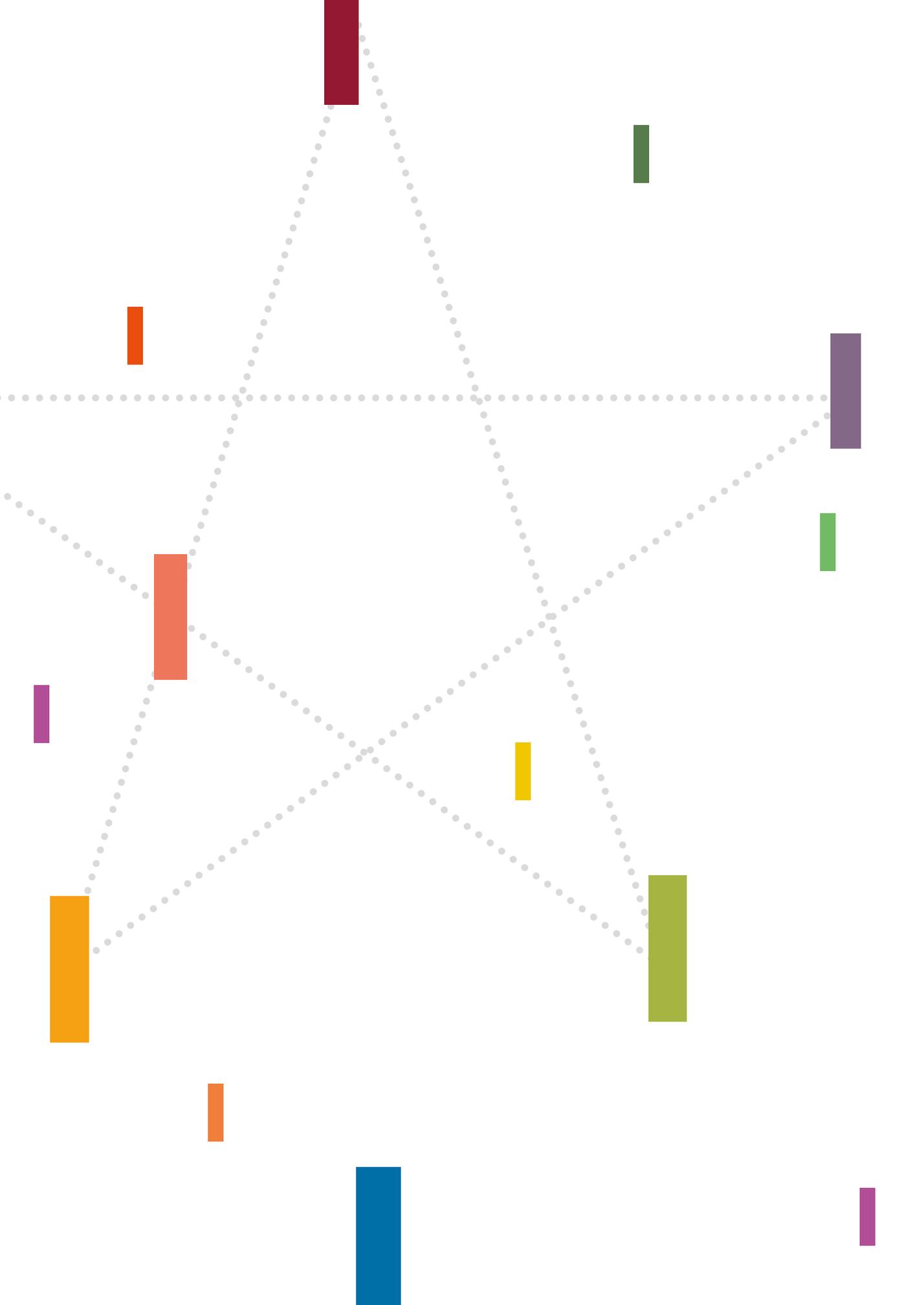


EU–ANSA agencies’ engagement in the European Union research knowledge cycle: an overview

Authors

- Mike Catchpole (Chief Scientist, Office of the Chief Scientist, ECDC)
- William Cockburn (Head of Prevention and Research Unit, EU-OSHA)
- Beatrice Comby (former Director of Capacity Building, Frontex)
- Hubert Deluyker (former Scientific Adviser to the EFSA Executive Director)
- Hans-Georg Eichler (Senior Medical Officer, EMA)
- Joanna Goodey (Head of Freedoms and Justice Department, FRA)
- Paul Griffiths (Scientific Director, EMCDDA)
- Marta Hugas (Chief Scientist, EFSA)
- Demosthenes Ikonomidou (Head of Operational Security Unit, ENISA)
- Derek J. Knight (Chair of EU–ANSA, Senior Scientific Officer, ECHA)
- Erika Mezger (Deputy Director, Eurofound)
- Lars Fogh Mortensen (Head of Group Networks and International Cooperation, EEA)
- Therese Murphy (Head of Operations, EIGE)
- Howard Needham (corresponding author, Expert Scientific Liaison, ECDC)
- Steve Purser (Head of Technical Competence Department, ENISA)
- Antonio Ranieri (Head of Department for Learning and Employability, Cedefop)
- Barbara Schmidt (Monitoring and Evaluation Officer, Eurofound)
- David Stanners (Head of Programme, Partnerships and Network, EEA)
- Agnieszka Szcześniak (Assistant to Director of Capacity-Building Division, Frontex)





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Executive summary: key findings and recommendations

The European Union Agencies Network for Scientific Advice (EU–ANSA) consists of technical and regulatory agencies that provide scientific advice to EU policymakers; these agencies are thus both a source and a user of knowledge. The scientific evidence that underpins the agencies' scientific advice is typically generated by formal research. In collating and systematically reviewing the scientific evidence available to address real-world problems, the agencies also identify where gaps in the evidence exist. Hence, agencies have a deep understanding of the research knowledge available as well as where knowledge gaps limit the quality of advice produced. Agencies therefore have a deep-rooted interest in research and in the generation of knowledge as it underpins the evidence base upon which their advice outputs are derived.

The EU–ANSA conducted a survey to map how its member agencies engage with EU research funders and researchers in the **research knowledge cycle**, which is conceptualised as a sequence of **identification** of research needs, as **advocacy** of these needs to EU research funders, as assistance in the **assessment** of research proposals and as an **engagement** with ongoing EU research projects. The survey is the basis for discussion about the engagement of agencies in the research knowledge cycle, further elaborated by case studies illustrating good practice examples by agencies, leading to some general conclusions and suggestions.

Overall, the survey findings confirm that engagement in research activities is central to the work of all EU–ANSA agencies, but they also reveal some variance in the approaches and experiences in the different areas of the research knowledge cycle. As part of their scientific outputs, all agencies identify knowledge gaps and research needs. Some agencies, particularly those whose core disciplines are within the social sciences and undertake large population-based analyses, apply their scientific findings to develop internally led research actions to address gaps within existing official EU statistical (e.g. Eurostat) and survey data. However, in most cases, agencies largely rely on externally supported research to address the identified research needs.

Agency experiences and perceptions of the value of addressing research policy actors to support external research action were varied. Currently, agency interactions with EU-level research actors are diverse, ranging from strong collaborative agency partnerships with EU funders to steering policy research planning and delivery, to rather remote access and little direct engagement. The perception of the majority of agencies is that primary EU funders regard them as just one of many 'stakeholders', and in many cases the relationship is driven by individual staff contacts. There are, however, examples of EU agencies that are viewed as research partners and take an active role in directing and supporting ongoing and future EU research. In addition, there are examples of good practice within the EU–ANSA membership that illustrate the potential for agency involvement in shaping the research agenda.

At present, this patchy engagement fails to fully mobilise and exploit the knowledge and expertise that exist in the agencies. As such, there is a potential to enhance the research knowledge cycle, by EU funders drawing more systematically on this

knowledge and expertise. The challenge is therefore to develop corporate relationships and build mutual support and direct engagement between EU agencies, EU research funders and EU data providers. Closer engagement would enhance information exchange and knowledge while alerting different research entities, including EU agencies, of possible overlapping and duplication. This is particularly the case where agencies engage in primary data collection in order to ensure that the nature and scope of EU-funded work aligns with and enhances the existing research portfolios of EU agencies.

Greater synergies between agencies, partner directorates-general (DGs) and EU funders would also ensure that the budget that is allocated to research in the EU — by EU research funders — is utilised more efficiently by drawing on agencies' expertise as centres of independent scientific excellence.

A practical way to bring focus to this collaboration is by means of the EU-ANSA's **research clusters**, which define and promote common research needs from across several agencies with the specific aim to assist funders to prioritise research with broad policy application. The benefits for EU scientific advice and ultimately for policy development could be considerable if such a collaboration could be fostered more widely.

This reflection paper provides a foundation for action by which EU-ANSA agencies could enhance their added value to EU research actors and policymakers in the EU institutions. They could do this by identifying their common needs and highlighting that they represent a rich source of knowledge and expertise.

Background: context and rationale

Members of the EU–ANSA address a wide range of topics across the social, biological and physical sciences, but a core activity for all is the collection, collation and appraisal of scientific evidence. The scientific evidence that underpins the agencies’ scientific advice is typically generated by formal research. In some cases this research is agency-led, and supported research is a major component of the scientific activities of agencies that directly contribute to the primary evidence base. This is particularly the case in agencies in the social sciences, such as the European Foundation for the Improvement of Living and Working Conditions and the European Agency for Safety and Health at Work, which typically rely on large population-based datasets. However, the evidence base used by agencies to underpin their scientific advice is predominantly derived from research performed by others (external research activities), which are funded either by the private sector or by governmental organisations. Actions to enhance the external research funded by the public sector and utilised by agencies in their scientific outputs are the predominant focus of this paper.

Irrespective of the source, agencies must collate, appraise and present the existing knowledge base in order to produce their scientific advice outputs. Hence, many EU–ANSA agencies are explicitly or implicitly mandated to identify knowledge gaps and to support/promote research activities, as well as to engage closely with ongoing research action in order to acquire new knowledge in a timely manner. This can enhance the quality of evidence used in their scientific outputs, and thus the relevance to policymakers as well.

EU–ANSA members have discussed the issue of the identification and prioritisation mechanisms for the allocation of EU funding to support operational research activities as well as general challenges faced by agencies to promote and support external research in areas within their mandate. An initial discussion indicated that there is variance in how agencies engage with, and are engaged by, EU research actors, and it also brought up some mixed experiences in supporting and guiding relevant EU-level research. Hence, it was agreed to further explore actions undertaken by EU agencies to support research and to foster engagement with research actors.

The objective of this reflection paper is to identify mechanisms and approaches used by EU–ANSA members to support the EU research agenda within their respective domains and with examples of useful practices as well as to make recommendations for potential improvements in research-related actions within individual agencies or through collective action by the EU–ANSA. In particular, the survey was a starting point for discussions within the EU–ANSA on topics of common interest to several member agencies, which resulted in an indicative list of ‘research clusters’ that are able to articulate high-level R & D needs that are common to several agencies.

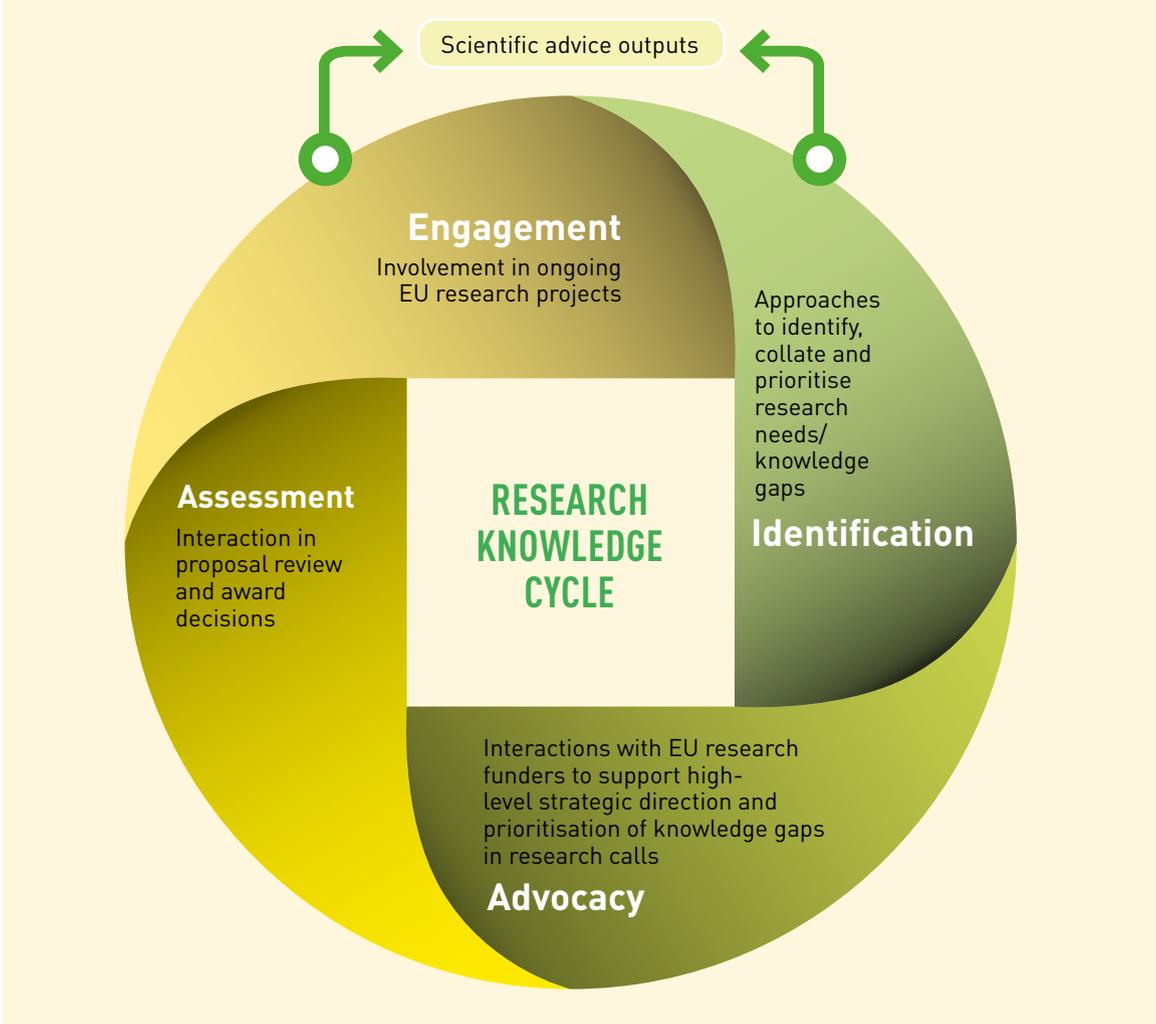
Finally, this reflection paper provides a foundation for action by which the EU–ANSA could enhance agencies’ common added value towards EU institutions/policymakers.

Methods: survey of EU-ANSA agencies' engagement in the research knowledge cycle

The European Centre for Disease Prevention and Control conducted an information-gathering exercise through an online electronic questionnaire on research engagement (see Annex). A conceptual framework comprising a four-stage 'research knowledge cycle' (Figure 1) was used to better understand how agencies engage with research actors and policymakers, particularly those in the EU institutions.

FIGURE 1

Representation of the conceptual research knowledge cycle addressed in the EU-ANSA survey



The survey was conducted between April and June 2015. At the time of the survey, the EU-ANSA counted 10 full members, all of which completed the survey (Table 1). An overview of the scientific processes of all of the current agencies in the EU-ANSA can be found at <https://publications.europa.eu/en/publication-detail/-/publication/6656c7c5-46df-468b-b375-b999d4d335be> (revision in press).

TABLE 1

EU-ANSA members participating in the survey

	ECDC	European Centre for Disease Prevention and Control (Stockholm, Sweden)
	ECHA	European Chemicals Agency (Helsinki, Finland)
	EEA	European Environment Agency (Copenhagen, Denmark)
	EFSA	European Food Safety Authority (Parma, Italy)
	EMA	European Medicines Agency (London, United Kingdom)
	EMCDDA	European Monitoring Centre for Drugs and Drug Addiction (Lisbon, Portugal)
	ENISA	European Union Agency for Network and Information Security (Heraklion, Greece)
	EU-OSHA	European Agency for Safety and Health at Work (Bilbao, Spain)
	EUROFOUND	European Foundation for the Improvement of Living and Working Conditions (Dublin, Ireland)
	FRA	Fundamental Rights Agency (Vienna, Austria)

Results of the survey

(A) Agency approaches to collect and prioritise knowledge gaps and possible research needs

All participating agencies confirmed that identified knowledge gaps are recorded and collated either routinely or occasionally:

- six agencies reported that identified research needs are published on an ad hoc basis, with comments suggesting that this is driven by the specific mandate of each scientific advice output being produced;
- four agencies reported that presentation of knowledge gaps was included as part of their scientific outputs as common practice, including one agency that includes research needs/further research as an explicit requirement in templates for agency publications.

Assessment and prioritisation of identified research needs is performed, but is rarely routine:

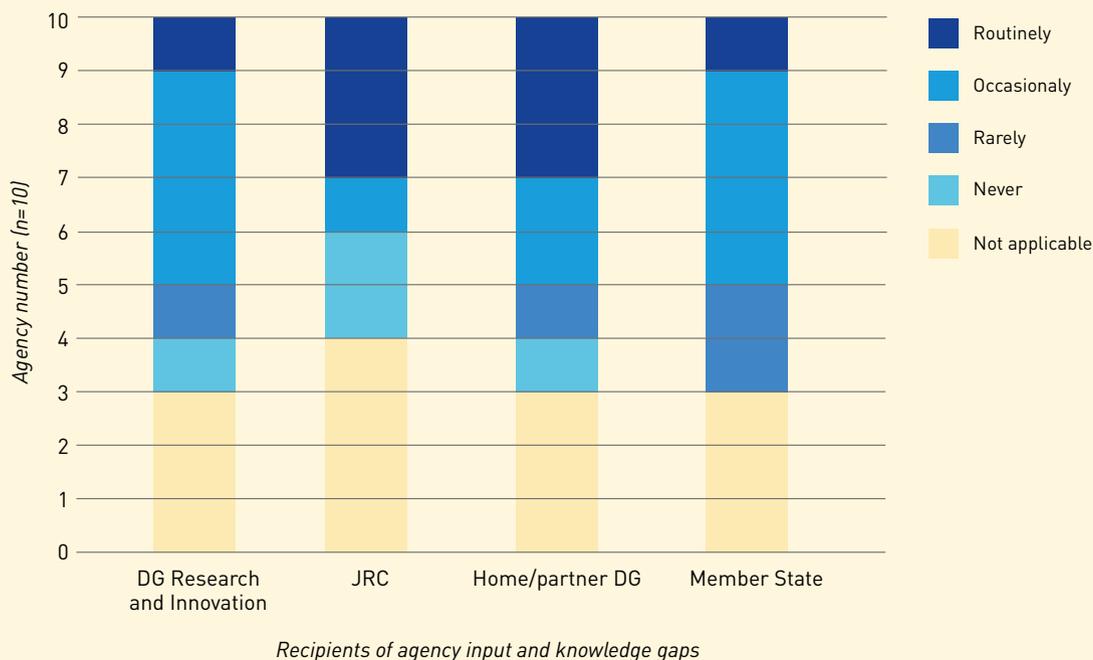
- identified research needs undergo some prioritisation in the majority of agencies (60 %) and this is mainly done under specific topic areas;
- in addition, one member (the EFSA) indicated that topic-specific research needs were reviewed and prioritised at central level — the EMCDDA indicated that it undertakes a centralised prioritisation exercise for topic-specific research.

(B) Interactions with EU research funders to promote knowledge gaps in research calls and other initiatives

- Seven agencies engage with EU institutions to support the inclusion of identified knowledge gaps/research needs in future research-funding calls. There was some variance in the target for such engagement and frequency of interaction (Figure 2).
- Six agencies reported some interaction on research needs with other EU institutions, i.e. DG Research and Innovation, the Joint Research Centre (JRC) or partner DGs, which here means the DG that is the agency's primary point of contact in the European Commission:
 - six reported interaction with DG Research and Innovation — one reported this took place routinely, while others reported it as occurring occasionally (n = 4) or rarely (n = 1);
 - four reported interaction with the JRC — three reported this took place regularly;
 - six agencies reported interaction with their partner DG — three reported this took place routinely, two occasionally and one rarely;
 - seven agencies reported that they also provide information to specific EU Member States (MSs) institutions routinely (n = 1), occasionally (n = 4) or rarely (n = 2).

FIGURE 2

Level of agency engagement with EU/MS funders to support the inclusion of identified knowledge gaps/research needs in future research-funding calls



The perception of agencies on how their advice for research action was valued was rather heterogeneous. The majority viewed that their relationship with the primary EU funders is only as one among a diverse range of ‘stakeholders’, and in many cases the relationship is driven by individual staff contacts:

- of the six agencies that highlight research gaps to DG Research and Innovation, agency perception was that their advice was taken into account occasionally (n = 3) or rarely (n = 2), with one agency reporting no knowledge of how its advice was perceived;
- of the five agencies presenting knowledge gaps to the JRC, one perceived the advice was taken into account routinely and four occasionally;
- of the six agencies reporting research requirements to home/partner DGs, five perceived that their inputs were used either occasionally or routinely and one did not know;
- all eight agencies that interact with MSs’ actors on research needs indicated that they perceived that this was valued occasionally.

(C) Support to EU research funders for strategic inputs, proposal review and award decisions

Five agencies support EU research funders in the development of research calls and the assessment of proposals. Of the remaining five, two do not take part in such activities because they consider that they do not have a mandate to do so. The five involved agencies report taking an active role both at strategic-level priority setting and through more targeted topic-specific activities such as giving inputs into specific research calls and assessing submitted projects. However, there is significant variance between agencies with regard to the frequency and depth of interaction with relevant EU institutions.

- Supporting strategic R & D decision-making in most cases was done only occasionally, although two agencies indicated routine involvement with high-level strategic decision-making through partner DGs.
- At a more operational level, to support the content of specific research calls for those EU institutions explicitly referenced in the survey (DG Research and Innovation, the JRC, partner DGs), two agencies reported that they give inputs through partner DGs, two to DG Research and Innovation and one to JRC.
- Five agencies also play a role in the assessment of research proposals and funding decisions. When stratified by DGs (DG Research and Innovation, the JRC and home/partner DGs), only one or two agencies have an active role in funding decisions within each institution, and involvement was rarely routine.

(D) Involvement of agency staff in ongoing research projects

All 10 EU–ANSA member agencies receive invitations to engage in ongoing EU-funded research projects. Agencies are invited to join for a variety of reasons. They are, in decreasing order of frequency, as follows:

- to act as an advisor or other overseeing role — six agencies reported this concerned over 50 % of invitations;

CASE STUDY 1

Knowledge gap identification and prioritisation: the EFSA

All EFSA scientific outputs include an explicit 'research recommendations' section. This is embedded in the scientific opinion templates which are used as a basis for EFSA scientific outputs. This ensures that knowledge gaps are routinely identified in the development of the scientific advice outputs.

The EFSA also undertakes an annual prioritisation exercise; a number of mandated groups and stakeholders (scientific panels, EFSA units, the Scientific Committee and the Advisory Forum) engage in a consultation exercise to prioritise research gaps and topics for research funding under the topic areas within their respective mandates. Five universal criteria are used to support the prioritisation exercise, based on which a number of thematic areas are identified and then aligned to broad thematic areas within the Horizon 2020 framework programme to ensure outputs are 'translated' for DG Research and Innovation action. The report is submitted to DG Research and Innovation, DG Agriculture and Rural Development and DG Health and Food Safety as well as being published on the EFSA website. For the 2014 report, see: <http://www.efsa.europa.eu/en/search/site/research%20priorities>.

- to take an active role in data support and processing — six agencies reported this was the case for over 30 % of invitations;
- to act as passive suppliers of data — all 10 agencies suggested that < 30 % of invitations arose for this purpose and five reported that it was < 10 %;
- to participate in research activities because of expectations that the agency could ensure project continuation following cessation of funding;
- eight agencies suggested that they received such invitations, but that this was the primary reason in less than 10 % of total invitations received.

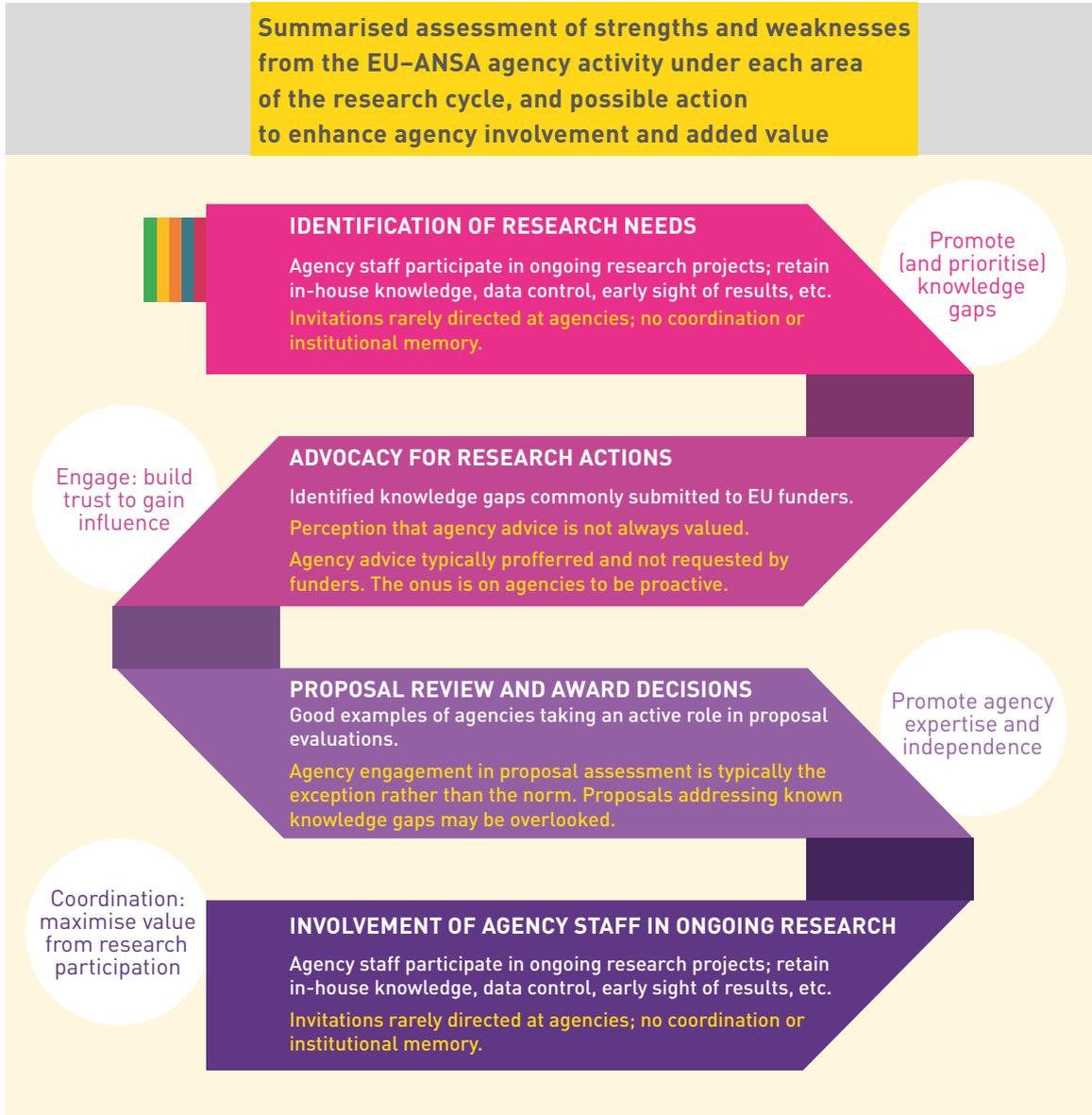
Several agencies commented that they could never take part as recipients of funding in EU programme-funded research as they considered this to be legally inadmissible on the grounds of 'double accounting'.

Five agencies reported the majority of invitations to participate in research consortia go directly to specific staff members; the remaining five are predominantly directed to the corporate level. Six agencies have policies in place on staff involvement in a research consortium, and three confirm that no policies are in place (1 = not applicable).

Discussion

The survey results confirm that activities to support and enhance research are of interest to all EU-ANSA members. Figure 3 shows a summarised assessment of strengths and weaknesses with regards to EU-ANSA agency activity and engagement with EU research funders and other research actors under each area of the research cycle. It also shows possible action to enhance agency involvement and added value.

FIGURE 3



The survey findings are further elaborated by a consideration of the agencies’ own research initiatives and by case studies illustrating good practice on behalf of the agencies, leading to some general conclusions and suggestions.

(A) Identifying research gaps

In reviewing the separate elements of the research knowledge cycle, it is clear that knowledge gap identification is performed routinely, but that generally agencies are less engaged in performing in-house collation or prioritisation of identified research gaps or in translating these to align to thematic funding areas identified by DG Research and Innovation and other funders. However, there are examples of agencies taking active steps to collate and prioritise identified research gaps with specific topic areas (see Case study 1).

The EFSA's annual prioritisation exercise is broad and identifies priorities under each thematic area. One other example is the EMCDDA, whose Scientific Committee identifies research priorities across the EU drugs strategy themes on an annual basis and offers advice on mechanisms to coordinate drug-related research. Other methods are employed by some agencies; for example, the Fundamental Rights Agency engages its Management Board (which is composed of independent experts in the field of fundamental rights) in regular scoping exercises to define new areas of work, which is underpinned by a broader stakeholder consultation.

Through the sharing of such examples as well as from the experience gained from them, the EU-ANSA provides a forum for developing models of good practice that may be usefully applied by others. In this case, the findings suggest that if agencies produce summarised outputs which identify and prioritise clearly defined research targets from a range of research options available, it would give a clear message on research prioritisation within each agency domain.

Prioritisation could also be applied across several agencies to identify overarching research priorities. The EU-ANSA has a clear role in collecting and communicating the consolidated views of member agencies on knowledge gaps that they have identified during their work in order to steer research, i.e. to communicate to researchers and funders of research. This is already being initiated by the EU-ANSA through the identification of 'research clusters', which define and promote common research needs from across several agencies with the specific aim to assist funders in prioritising research with broad policy application. The outcome is an indicative list of 'research clusters' that articulate high-level R & D needs and examine where agencies can best collaborate on research or promoting research:

- socioeconomic analysis;
- exposure science;
- innovative approaches for the prediction of properties of chemicals and products: reduction, refinement and replacement of animal studies;
- quantitative survey data: increasing the impact of primary data collection.

(B) Interaction with EU research funders in the pursuit of knowledge gaps

Although there is common interest in supporting the research agenda across all agencies, the survey indicates significant divergence in interactions of EU-ANSA members with research policy counterparts in the EU institutions.

The diversity may in part reflect the various mandates and environments in each agency. The results confirm that the partner DGs are commonly an

agency's primary point of contact for research interaction and the pursuit of research aims, rather than the EU institutional actors directly devoted to research funding (DG Research and Innovation) and research delivery (JRC). Such contacts with partner DGs are perceived to be of merit, as it has the potential to influence the partner DG's advice to primary funding institutions, also ensuring that agency and partner DG viewpoints are aligned.

The general impression from the survey is that in many cases EU agencies remain rather peripheral to the EU research 'agenda setting'. Agency inputs into research activities is typically provided occasionally and not as a matter of routine, and agency advice is given rather than sought after.

Hence, there may be value in further exploring whether more direct interaction is merited between EU-ANSA agencies and the primary funding bodies individually or collectively; the depth of knowledge of EU expertise in EU agencies may warrant engagement directly with EU funding institutions on this aspect.

A case in point for direct engagement of agencies concerns the 'research clusters' described above, i.e. research needs that are common across several agencies and that have the potential for broad policy application. It is foreseen that joint thinking and collaboration on such research needs will offer more useful and credible inputs into the research cycle.

(C) Support to EU research funders for strategic inputs, proposal review and award decisions

Whereas EU-ANSA members are rather proactive in the identification of knowledge gaps, there is more limited engagement in actively supporting EU research funders for strategic inputs, proposal review and award decisions.

There are examples of agencies that are invited to take a more active role in the research proposal assessment and decision-making, particularly in specific research calls led by partner DGs and EU funding agencies. For example, the EMCDDA is now regularly involved in the assessment step of calls for projects (including analytical activities) from DG Migration and Home Affairs. Another example is the way the EEA participates in the governing board of the joint programming initiative 'Connecting climate knowledge for Europe' (<http://www.jpi-climate.eu/home>). This supports the joint coordination of climate research between 16 European countries and funding of new transnational research initiatives. While there are many joint programming initiatives across themes in Europe (http://ec.europa.eu/research/era/joint-programming-initiatives_en.html), a systematic approach to the involvement of agencies in these seems to be missing. Such examples may merit further investigation with a view to their application in other areas covered by other agencies.

(D) Involvement in ongoing research projects

All agencies have been invited to play a role in various EU-funded external research projects. The most common involvement was in some form of advisory role.

The survey did not address agency motivations for such involvement, but there are obvious gains for agency staff to be close to the research arena to

develop or retain knowledge, technical skills and relevant scientific contacts, as well as — critically — to get early sight of emerging results. While not explicitly addressed in the survey, comments suggested that all agencies accept some invitations to participate in ongoing research projects, but that capacity limitations required them to be selective.

Interestingly, over half of the invitations to take part in research activities are directed at individual experts and not at the agency itself. The reason for this is unclear, but may be because agency staff is often well known in their field of expertise, and hence contact is made individually rather than at the corporate level. Individual invitations may be problematic if agencies wish to apply consistent approaches to research project involvement, including monitoring and prioritising staff engagement. The majority of agencies report that internal policies are in place for staff involvement in external research activities. This was necessary, as several agencies indicated a lack of capacity to support (all) requests for active involvement in ongoing research, and hence some judgement is required to determine which projects should be selected. There may be value in the EU–ANSA members sharing their internal policies to review different approaches and identify areas of good practice. The importance of internal coordination of research activities and staff research engagement is one driver for the appointment of research coordinators (see Case study 2). Other agencies may also benefit from identifying specific staff who are responsible for internal coordination of research action and to ensure an agency is aware of all relevant research activities within its domain and retains an active presence in the research arena.



CASE STUDY 2

Research coordinator — coordination of agency contribution to EU research: the EMCDDA

There is a growing volume of research activity that overlaps with aspects of the EMCDDA work programmes, including large external research projects funded under DG Research and Innovation framework programmes (FP7 and Horizon 2020), but also smaller projects which address issues relevant to the EMCDDA's work programmes and where the EMCDDA's support and engagement are systematically requested.

Some of these activities may be particularly appropriate for close and collaborative working. However, any participation in external projects has resource implications. It was therefore necessary to have a clear understanding of how EMCDDA activities are coordinated to ensure maximum value is accrued from inputs and any possible costs as well as to avoid duplication of efforts.

In 2011, the EMCDDA created the role of research coordinator to ensure efficient coordination of its formal collaboration with ongoing research initiatives by:

- functioning as an internal hub for drug-related research information;
- keeping an updated overview of ongoing EU research projects and of calls for proposals on the EMCDDA intranet, including documentation of the agency's involvement;
- supporting staff with up-to-date information related to EU research projects;
- communicating incoming requests for inputs into to EU research projects to the EMCDDA's scientific coordination and relevant heads of unit;
- contributing to regular in-house updates on the EMCDDA's involvement in EU research projects.

(E) Agencies' own research initiatives

While not the subject of this survey, it is noted that some agencies conduct applied research themselves, as part of their mandate. This often concerns large-scale quantitative surveys covering the EU-28. For these agencies, the need to ensure information exchange and collaboration with relevant research counterparts at EU and national level is essential — both with respect to primary data collectors and users of primary data; for example, with national statistical offices at MS level and with Eurostat at EU level.

Here, it would be desirable if more systematic assessments are made of EU funding for primary data collection projects that are similar in nature and scope to work that is undertaken or could be undertaken by some EU agencies. This would allow for both expert information exchange and for knowledge enhancement, while at the same time alerting different research entities, including EU agencies, to possible overlaps and duplication. Enhanced collaboration between agencies, other EU-funded research and

CASE STUDY 3

A knowledge innovation project for collaborative research: EEA, DG Environment, Eurostat, JRC and DG Research and Innovation

Protecting natural capital is the first priority objective of the seventh environment action programme of the EU. Ecosystem accounting is a key approach for measuring and analysing trends in the EU's natural capital. For that purpose an EU-level partnership has been established as a so-called knowledge innovation project for developing an integrated system for natural capital and ecosystem services accounting in the EU. The project partners are Eurostat, the EEA, DG Environment, the JRC and DG Research and Innovation.

The project aims to design and implement an integrated accounting system for ecosystems and their services in the EU by connecting relevant existing projects and data collection exercises to build up a shared platform of geo-referenced information on ecosystems and their services.

Working in a manner that is consistent with United Nations standards, the project aims to establish an accounting system at EU level, primarily using EU-wide data sources. In addition, data available at national or local level on a finer scale could be linked to this EU layer for more detailed analysis. Interested MSs should be able to link into this EU system.

With information about the extent, type and condition of ecosystems, and the quantities and values of ecosystem services flows, the project will be able to:

- (1) present a comprehensive overview of the stock of ecosystem assets and related service flows;
- (2) show interdependencies between natural capital and economic activities;
- (3) allow measurement of the changes in these elements over time;
- (4) present information and enable the aggregation (or disaggregation) of information at different scales, e.g. at ecosystem units, river basins and bio-geographic regions, but also at regional, national or EU level;
- (5) provide a reliable basis for decision-making on the use of natural resources.

The project is structured in two main phases, a feasibility and design phase (May 2015-summer 2016) and a follow-up implementation phase (foreseen for 2016-2020).

EU funders of research is also to be encouraged with a view to rationalising existing funding resources.

A recent initiative between EEA and Commission counterparts to establish a 'knowledge innovation project' is instructive about the type of collaboration that can be achieved at the science policy interface to develop requisite policy-relevant knowledge (see Case study 3). This model moves away from agencies that are being rather passive actors in support of ongoing research. In this case the agency has a catalytic role, being central to both the planning and the delivery of specific research activities within a collaborative framework. The incentive to collaborate resides in the combination of high policy relevance and in the way the different actors involved each hold only a part of the information and expertise needed to forge the common good required by all of the actors. This not only offers an interesting example of how collaboration between agencies and Commission counterparts can create synergy and avoid duplication of EU actions, but it also offers a model to ensure 'new' science is targeted to meet defined knowledge gaps and hence to better address policy needs. This may serve as a model for other EU agencies and concerned institutions.

Conclusions and recommendations

The agencies within the EU–ANSA address a variety of subjects, with a corresponding range of expertise, and are engaged in a series of scientific domains. Hence, together, agencies are a rich source of knowledge and expertise to support multidisciplinary research action to address the fundamental questions that impact on EU citizens in the 21st century. Research action within some EU–ANSA agencies is internally focused and funded, and applied research activities are undertaken in support of their own work programmes and advice outputs. However, most agencies are largely reliant on externally generated research to support their scientific advice content. All agencies have an interest in enhancing the evidence base in their domains and, as independent, publicly funded centres of excellence, they offer a significant potential resource to provide impartial and independent advice, insight and guidance into the planning and delivery of external research at all points in the research knowledge cycle. Given the evidence presented in this paper, collaboration by EU research-funding bodies with EU agencies — as centres of scientific excellence in the EU — could be enhanced to the benefit of the EU’s system of research development. To this end, greater and more systematic engagement between EU–ANSA members and EU primary data owners, research funders and policymakers would offer both added value and a greater return on investment for EU science. In this regard, it is proposed that EU agencies be key partners for identification and promotion of science for policy.

The survey reveals some variance in approaches and experiences in these different areas. Whereas all agencies identify knowledge gaps and research needs as part of their scientific outputs, the experiences and perceptions of the value of addressing research policy actors to support external research action were varied. The perception of the majority of agencies is that primary EU funders regard them as just one of many ‘stakeholders’, and in many cases the relationship is driven by individual staff contacts. There are, however, examples of EU agencies that are viewed as research partners and take an active role in directing and supporting ongoing and future EU research. In addition, there are examples of good practice within EU–ANSA membership that illustrate the potential for agency involvement in shaping the research agenda.

Overall, these findings confirm that engagement in external research activities is central to the work of all the EU–ANSA agencies. There is significant untapped potential to enhance the research knowledge cycle through EU funders by drawing more systematically on the knowledge and expertise of the agencies. The challenge is therefore to develop corporate relationships and build mutual support and direct engagement between EU agencies and EU research funders; in essence, to move from being stakeholders to becoming partners in all aspects of the research knowledge cycle. One practical way to focus this collaboration is by means of the EU–ANSA’s ‘research clusters’. These are specific topics that have the potential for broad policy application. The benefits for EU scientific advice and ultimately for policy development

could be considerable if such collaboration were fostered more widely. Greater synergies between agencies, partner DGs and EU funders would also ensure that the budget that is allocated to research in the EU — by EU research funders — is employed more efficiently by drawing on agencies' expertise as centres of independent scientific excellence.

The 'added value' of agencies and the EU-ANSA as a single point of contact is: (a) to identify common research and development needs of agencies, including an anticipatory role in foreseeing needs; and (b) to be a pool of expertise from agencies for the EU institutions.

Annex: Survey outline

Part A: Agency approaches to collect and prioritise knowledge gaps and possible research needs

Q(1) Does your agency identify 'knowledge gaps' or 'areas for further research' in its scientific outputs/publications? Please select one option only.

Q(2) How is 'knowledge gap' identification predominantly supported in agency publications and other outputs? Please select one option only.

Q(3) Are identified knowledge gaps/research needs collated and stored?

Q(4) Do identified knowledge gaps and research needs undergo a review and prioritisation exercise within the agency?

Part B: Interactions with EU research funders to promote knowledge gaps in research calls

Q(5) Does your agency engage with EU/MS funders to support the inclusion of identified knowledge gaps/research needs in future research-funding calls?

Q(6) In your view, do EU research funders take agency-identified knowledge gaps/research needs into account when developing research calls? Please select one option per row. DG Research and Innovation.

Part C: Support to EU research funders for strategic inputs, proposal review and award decisions

Q(7) Does your agency give direct inputs into high-level strategic decision-making/priority setting for EU research funding?

Q(8) Does your agency give direct inputs into the development of specific EU research calls and other funding opportunities in areas within its mandate?

Q(9) Do the EU institutions invite the agency to be represented in assessment and decision-making on submitted research proposals in areas within its mandate (i.e. support to funding decisions)?

Part D: Involvement of agency staff in ongoing research projects

Q(10) Does the agency or its staff receive invitations to participate in EU-funded research projects?

Q(11) When invitations from agency involvement in EU-funded research consortia are sent, to whom are they predominantly directed? Please select one option only.

Q(12) Does the agency have an agreed procedure/policy/common approach regarding participation in ongoing EU research projects (e.g. policy on research consortium membership)? Please select one option only.



EU-ANSA agencies' engagement in the European Union research knowledge cycle: an overview

